

Amendment Under 37 C.F.R. § 1.312

Serial No.: 10/777,928

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IN THE CLAIMS:

1. (Previously Presented) A drive method of a CCD color image sensor comprising a plurality of sensor sections, each of which has a color filter different from each other and each of which comprises: a photoelectric conversion element group, operable to receive light so as to generate charge including signal charge and unnecessary charge based on the light and operable to accumulate the charge; a shift register, operable to transfer the charge to an output section; and a shift gate, arranged between the photoelectric conversion element group and the shift register, the drive method comprising :

transferring the signal charge accumulated in each photoelectric conversion element group to each shift register by opening each shift gate

transferring the signal charge from the shift register to the output section in a state that the shift gate is closed;

transferring the unnecessary charge in the photoelectric conversion element group to the shift register and the unnecessary charge from the shift register to the output section in a state that the shift gate is opened; and

transferring the unnecessary charge from the shift register to the output section while accumulating the signal charge in the photoelectric conversion element group in a state that the shift gate is closed, wherein

the signal charge is transferred from the shift register to the output section in a time period that is set for each sensor section and is different for each sensor section.

2. (Cancelled).

3. (Currently Amended) A color image input apparatus comprising:

a CCD color image sensor, comprising a plurality of sensor sections, each of which has a color filter different from each other and each of which comprises:

a photoelectric conversion element group, operable to receive light so as to generate charge including signal charge and unnecessary charge based on the light and operable to accumulate the charge;

a shift register, operable to transfer the charge to an output section;

a shift gate, arranged between the photoelectric conversion element group and the shift register; and

a controller that transfers the signal charge accumulated in each photoelectric conversion element group to each shift register by opening each shift gate;

transfers the signal charge from the shift register to the output section in a state that the shift gate is closed;

transfers the unnecessary charge in the photoelectric conversion element group to the shift register and the unnecessary charge from the shift register to the output section in a state that the shift gate is opened; and

transfers the unnecessary charge from the shift register to the output section while accumulating the signal charge in the photoelectric conversion element group in a state that the shift gate is closed, wherein

the signal charge is transferred from the shift register to the output section in a time period that is set for each sensor section and is different for each sensor section.

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4. (Cancelled)